

REMARKS

The Office action mailed April 25, 2001 (Paper No. 9) has been carefully reviewed and these remarks are responsive thereto. Claims 1-55 were pending. By previous amendment, claims 1, 11-20, 23, 28, 33 and 39 were cancelled. By Office action (Paper No. 9), claims 22, 31, 52, 54 and 55 are allowed, and claims 2-10, 21, 24-27, 29, 30, 32, 34-38, 40-51 and 53 were rejected. By this amendment, Applicants cancel claims 3, 4, 25-26, 36, 38, 40-42, 47-48 and 53 without prejudice or disclaimer of the subject matter contained therein, add new claims 56-72, and amend claims 2, 24, 27, 32, 43-44, 46 and 51 to address all issues presented through examination. Accordingly, claims 2, 5-10, 21-22, 24, 27, 29-32, 34-35, 37, 43-46, 49-52, and 54-62 remain pending. Reconsideration of the instant application is respectfully requested.

Second Supplemental Amendment mailed 4-27-01

Applicants note that a second supplemental amendment had been mailed 4-27-01, whereas the instant Office action had been mailed 4-25-01. It is thus apparent that the two documents crossed in the mail. Accordingly, the proposed claim amendments in the second supplemental amendment were not part of the file at the time of examination. Applicants remark that the proposed claim amendments in the second supplemental amendment merely corrected typographical errors. For the purposes of the instant amendment and response, Applicants propose to treat claims amended in the second supplemental amendment as if such amendments have been entered. A courtesy copy of the second supplemental amendment with transmittal and return receipt card is provided herewith.

Allowable Subject Matter

The Examiner has indicated that claims 22, 31, 52, and 54-55 are allowed, and that claims 4-6 and 36 would be allowable if rewritten to include all limitations of the base and intervening claims. Applicants wish to thank the Examiner for indication of the allowable subject matter. By this amendment, Applicants amend independent claim 2 to include the features recited in claim 4, and amend independent claim 32 to include the features recited in

claim 36, canceling claims 4 and 36. Accordingly, Applicants submit that independent claims 2 and 32 are in a condition for allowance. Further, claims 5-10 and 21 depend from allowable claim 2, and claims 34-35 and 37 depend from allowable claim 32. Thus, claims 5-10, 21, 34-35 and 37 are allowable as being dependent upon an allowable base claim.

Claim Rejections – 35 U.S.C. § 103

The rejection of Applicants' claims under 35 U.S.C. § 103(a) relies principally upon primary reference U.S. Patent No. 5,453,979 to *Schibler et al.* in view of secondary reference U.S. Patent No. 5,828,666 to *Focsaneanu et al.* *Schibler et al.* discloses local generation of routing information in order to avoid requesting route information from a remote database system. Route information is obtained by the route processor through a plurality of routing tables, which are created and maintained by a master processor. The master processor is responsible for building the routing tables from topology information received from an administration subsystem that determines network and switch topologies. *Schibler et al.* does not teach or suggest using a DLCI to expand services to existing frame relay based CPEs, or any other feature of Applicants' invention as claimed.

Focsaneanu et al. addresses the problem of channelized access and transport of fixed bandwidth data transmission through local exchange carrier networks. *Focsaneanu et al.* discloses interfacing CPEs and communications networks through local access to form a "universal services" network. Information content is extracted from traffic at the local access between CPE and the communications networks. Then, prior to handling in the communications networks, appropriate routing is determined according to the extracted information content, which is then routed to the appropriate service providers and/or network resources. *Focsaneanu et al.* does not teach or suggest using a DLCI to expand services to existing frame relay based CPEs, or any other feature of Applicants' invention as claimed.

Applicants maintain that neither *Schibler et al.* nor *Focsaneanu et al.*, alone or in combination, teach or suggest any feature of Applicants' invention as claimed.

More particularly:

I. Claims 2, 3, 7-10, 21, 24-25, 27, 29-30, 32, 34-35, 37-38, 40-46, and 49-53 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,453,979 to *Schibler et al.* in view of U.S. Patent No. 5,828,666 to *Focsaneanu et al.* By this amendment, Applicants have cancelled claims 3, 25, 38, 40-42 and 53, thereby rendering their rejection moot, and have amended claims 2 and 32 to include features of dependent claims the Examiner has identified as allowable. Thus, independent claims 2 and 32 are presently in a condition for allowance. Further, claims 7-10 and 21 depend from allowable claim 2, and claims 34-35 and 37 depend from allowable claim 32. Therefore, claims 7-10, 21, 34-35 and 37 are allowable as being dependent upon an allowable base claim. Additionally, The Examiner has identified claim 31 as allowable. Claim 52 is dependent from claim 31. Thus, claim 52 is allowable as being dependent upon an allowable base claim. Accordingly, claims 24, 27, 29-30, 43-46 and 49-51 stand rejected under *Schibler et al.* in view of *Focsaneanu et al.* Applicants hereby traverse.

Claim 24 recites, *inter alia*, “wherein the service categories are determined using Internet protocol (IP) data within a data field of a packet passed by the asynchronous transfer mode switch.” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 24 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

Claim 27 recites, *inter alia*, “using a private routing table, determining whether the address is consistent with the layer 3 internet protocol address” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 27 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.* Further, claims 29 and 30 depend from allowable claim 27. Thus, claims 29 and 30 are allowable as being dependent upon an allowable base claim.

Claims 43 and 44 recite, *inter alia*, ATM “cells having an address responsive to a DLCI contained within a header data field” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claims 43 and 44 are allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

Claim 45 recites, *inter alia*, “A fast packet network having a node . . . including error checking circuitry for determining routing errors by comparing an address of a fast packet with layer 3 Internet protocol (IP) data contained within the fast packet.” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 45 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

Claim 46 recites, *inter alia*, “wherein the routing tables are separated based on data link connection identifiers.” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 46 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

Claim 49 recites, *inter alia*, “frame relay frame having a data link connection identifier, wherein at least one data link connection identifier is associated with a service category; and means for associating a data link connection identifier with a virtual network path according to the service category with which the data link connection identifier is associated.” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 49 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

Claim 50 recites, *inter alia*, “transmitting at least a portion of the frames over at least one of a plurality of virtual networks, each of said virtual networks representing different service classes, each of said service classes being associated with a data link connection identifier.” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 50 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

Claim 51 recites, *inter alia*, “transmitting at least a portion of the frames over one of a plurality of virtual networks responsive to DLCI and Internet protocol (IP) information contained in at least one of the frame relay frames.” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claim 51 is allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.*

II. Claims 26 and 47-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Schibler et al.* as applied to claim 46 in view of U.S. Patent No. 5,982,869 to *Lozano et al.* By this amendment, Applicants have cancelled claims 26 and 47-48, thereby rendering their rejection moot.

III. Claims 43 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Schibler et al.* in view of *Focsaneanu et al.*, as applied to the claims in I above, in view of U.S. Patent No. 5,490,140 to *Abensour et al.* Applicants hereby traverse.

Claims 43 and 44 recite, *inter alia*, ATM “cells having an address responsive to a DLCI contained within a header data field” The asserted combination of *Schibler et al.* in view of *Focsaneanu et al.* in view of *Abensour et al.* fails to teach or suggest this feature. Therefore, Applicants respectfully submit that claims 43 and 44 are allowable over the combination *Schibler et al.* in view of *Focsaneanu et al.* in view of *Abensour et al.*

Marked Up Pages

In accordance with 37 C.F.R. § 1.121, attached hereto on one or more separate pages is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) are captioned “MARKED UP VERSION OF AMENDMENTS MADE.”

CONCLUSION

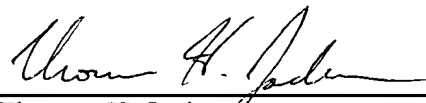
All issues having been addressed, Applicants submit that the instant application is in condition for allowance, and solicit prompt notification of the same.

Authorization is hereby made to charge any fees due or outstanding, or credit any overpayment, to Deposit Account No. 19-0733.

Respectfully submitted,

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MARKED UP VERSION OF AMENDMENTS MADE**IN THE CLAIMS:**

Claims 2, 24, 27, 32, 43-44, 46 and 51 have been amended as follows:

2. (Thrice amended) A method comprising the steps of:
receiving into a fast packet network frame relay data packets, said frame relay data packets having user data in a user data field, wherein said user data comprises service category data;
switching said frame relay packets within the fast packet network responsive to the user data; and
discriminating between a plurality of service categories based on the user data; and
routing over a virtual private network responsive to at least one of the service categories.
24. (Amended) A method comprising the step of utilizing separate routing tables within an asynchronous transfer mode switch for each of a plurality of service categories;
wherein the service categories are determined using Internet protocol (IP) data within a data field of a packet passed by the asynchronous transfer mode switch.
27. (Thrice Amended) In a fast packet network, a method comprising the steps of:
receiving a fast packet;
comparing an address of the fast packet with a layer 3 Internet protocol (IP) address contained within the fast packet; and
using a private routing table, determining whether the address is consistent with the layer 3 internet protocol address;
wherein the step of determining includes examination of a sending address or a destination address.
32. (Twice Amended) A network comprising:

MARKED UP VERSION OF AMENDMENTS MADE

customer premises equipment;

a fast packet switch coupled to the customer premises equipment with at least one permanent virtual circuit and receiving a plurality of frame relay data packets, the fast packet switch including address translation circuitry for translating user data within at least one of the frame relay data packets into a fast packet address;

wherein the translation circuitry is responsive to a plurality of different service categories and configured to determine a quality of service responsive to layer 4 data.

43. (Thrice Amended) An asynchronous transfer mode switch comprising translation circuitry for translating a plurality of frame relay packets into asynchronous transfer mode cells having an address responsive to a DLCI contained within a header data field and to layer 3 Internet protocol (IP) data contained within a user data field of the frame relay packets.

44. (Thrice Amended) An asynchronous transfer mode switch comprising translation circuitry for translating a plurality of frame relay packets into asynchronous transfer mode cells having an address responsive to a DLCI contained within a header data field and to layer 4 Internet protocol (IP) data contained within a user data field of the frame relay packets.

46. (Amended) A multi-layer asynchronous transfer mode switch having separate routing tables for each of a plurality of service categories, wherein the routing tables are separated based on data link connection identifiers.

51. (Four Times Amended) A method comprising the steps of:
receiving a plurality of frame relay frames at an asynchronous transfer mode switch in a ~~mesh-network~~; and
transmitting at least a portion of the frames over one of a plurality of virtual networks responsive to DLCI and Internet protocol (IP) information contained in at least one of the frame relay frames.